PCN92

COST-EFFECTIVENESS OF NILOTINIB VERSUS IMATINIB AS FIRST-LINE TREATMENT FOR NEWLY DIAGNOSED PATIENTS WITH PHILADELPHIA CHROMOSOME-POSITIVE (PH+) CHRONIC MYELOID LEUKEMIA IN THE CHRONIC PHASE (CML-CP) IN RUSSIAN FEDERATION

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OBJECTIVES: To estimate the cost-effectiveness of nilotinib compared to imatinib as first-line (FL) treatment for newly diagnosed patients with Ph+ CML-CP. **METHODS:** A literature-based Markov model was developed to estimate the costs of Ph+ CML-CP patients initiating therapy with nilotinib or imatinib. Direct expenses associated with Ph+ CML-CP and resulting follow-up costs were calculated using general tariff agreement of Russian obligatory insurance system and official national statistics. For reference, accepted exchange rate was 1 EUR = 40 RUB. **RESULTS:** Compared to FL imatinib, FL nilotinib results in increases in discounted FL drug therapy costs: 17 283 587 RUB (432 090 EUR) in imatinib group and 19 826 435 RUB (495 661 EUR) in nilotinib group per patient for life expectancy (17.3 and 18.82 respectively). The discounted incremental cost/LYG and cost/QALY are estimated at 1 672 926 RUB (41 823 EUR) and 1 829 387 RUB (45 735 EUR), respectively. **CONCLUSIONS:** The results of cost-effectiveness illustrate that FL nilotinib is acceptable in Russian patients with Ph+ CML-CP who are initiating tyrosine kinase inhibitors therapy and has to be recommended as first-line (FL) treatment for newly diagnosed patients with Ph+ CML-CP.

PCN93

TREATMENT OF WELL-DIFFERENTIATED PANCREATIC NEUROENDOCRINE TUMORS WITH SUNITINIB IN PATIENTS WITH DISEASE PROGRESSION: COST-UTILITY AND COST-EFFECTIVENESS ANALYSIS

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OBJECTIVES: To perform cost-utility (CUA) and cost-effectiveness (CEA) analysis of sunitinib in combination with the best supportive care (BSC) in treatment of well-differentiated pancreatic neuroendocrine tumors (p-NET), unresectable or with metastases. **METHODS:** The Markov model constructed in TreeAge Pro 2009 was used in the analysis. The time horizon covered the period from start of treatment until the patient's death (lifetime horizon). Study *Raymond 2011* and poster *Ishak 2011* were the source of data on the efficacy of sunitinib and the health states utility. As the measure of effectiveness quality adjusted life years (QALY), life years gained (LYG) and life years gained without disease progression (LYGPF) were used and the results were presented as incremental cost-utility/effectiveness ratio (ICUR/ICER). CUA and CEA analyses were conducted from the perspective of the public payer for health services (Polish National Health Fund, PNHF) and from the patient and PNHF perspective. Following direct medical costs were included: sunitinib, administration of the drug, diagnostic and monitoring, *somatostatin analogues, BSC, severe adverse events and palliative care*. Discount rate of 5% for costs and 3.5% for benefits were used. **RESULTS:** The cost of gaining an additional QALY replacing placebo+BSC by sunitinib+BSC is 84,214 PLN/84,296 PLN (€20,441/€20,461) from PNHF/PNHF+patient perspective. Similarly, the cost of gaining an additional LYG is 58,450 PLN/58,507 PLN (€14,188/€14,201) and the cost of gaining an additional LYGPF is 79,868 PLN/79,946 PLN (€19,386/€19,405). Sunitinib+BSC is more costly and more effective therapy. Obtained results are placed below the acceptability threshold in Poland (which is about 99,543 PLN (€24,162)). The 2011 weighted average exchange rate of Polish National Bank was €1 = PLN 4.1198. **CONCLUSIONS:** The reimbursement of sunitinib would bring benefits to patients for whom there is currently no other effective treatment option. Sunitinib in combination with BSC prolongs overall survival and time to next progression.

PCN94

FEASIBILITY OF EFFICIENCY FRONTIER ANALYSIS (EFA) IN METASTATIC BREAST CANCER (MBC) TREATMENTS: A UK PERSPECTIVE

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OBJECTIVES: EFA may be useful for assessing the efficiency of newer interventions. This study evaluated whether EFA could be useful in identifying the efficiency of mBC therapies adopted by the NHS, and to identify the efficiency frontier for newer technologies. **METHODS:** A literature search identified mBC treatments that underwent HTA in the UK. Reports were reviewed to identify treatment efficacy and HTA recommendations. Costs were determined for a course of treatment. The incremental costs per patient were plotted on the horizontal axis and incremental median overall survival (ΔOS) of treatment was plotted on the vertical axis to construct the EFA line. Treatments below this line are considered inefficient. Treatments above this line have better OS and may redefine the efficiency frontier. Treatments in the upper right quadrant beyond the frontier line are in an area where ceiling price has not been defined. Treatments in the lower right quadrant beyond the frontier line are inefficient due to higher cost for lower OS. **RESULTS:** Ten reports that evaluated efficacy in terms of median OS were included in the EFA. The therapies are paclitaxel albumin, gemcitabine, trastuzumab, bevacizumab, lapatinib, eribulin and fulvestrant. On the frontier line are paclitaxel albumin (ΔOS of 2.3 months at £2020), gemcitabine (ΔOS of 2.8 months at £6020), and trastuzumab (ΔOS of 4 months at £16939); all received positive recommendations. Lapatinib (ΔOS of 1.9 months at £10180), bevacizumab (ΔOS of 1.7 months at £36560), eribulin (ΔOS of 2.5 months at £4834) and fulvestrant (ΔOS of 2.3 months at £2481) are all below the frontier line and received negative recommendations. **CONCLUSIONS:** EFA may be a useful method for assessing the efficiency of new mBC treatment options for clinical use. Further studies are needed to better understand value in terms of efficiency of treatments in other tumor types and disease areas.

PCN95

PHARMACOECONOMIC ANALYSIS OF DIRECT MEDICAL COSTS ASSOCIATED WITH THE TREATMENT OF ADVANCED ESOPHAGO-GASTRIC CANCER THERAPY WITH XELODA OR 5-FLUOROURACIL (5-FU) REGIMENS: IMPLICATIONS FOR HEALTH CARE UTILISATION IN AUSTRALIA

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OBJECTIVES: A capecitabine (Xeloda®) chemotherapy combination regimen has been shown to be non-inferior in terms of comparative effectiveness and safety over 5-Fluorouracil (5-FU) combination chemotherapy in advanced oesophagogastric cancer (eGC). The objective of this economic evaluation, which was based on two randomised phase III, non-inferiority clinical trials, REAL-2 and ML17032, was to compare the direct medical costs to the Australian health care system of capecitabine (X) versus 5-FU (F), when used in combination with epirubicin plus cisplatin (EC) as triplet therapy (ECX versus ECF), and when used in combination with cisplatin as doublet therapy (CX vs CF). **METHODS:** Direct medical costs were estimated for five treatment settings from both a public and private hospital perspective. Costs included in the economic evaluation were costs of drug acquisition (calculated using trial-based mean cumulative doses), drug preparation (5-FU), drug administration and drug wastage. The cost of drug acquisition was calculated based on dosage data and the mean number of treatment cycles from the REAL-2 and ML17032 trials. There were no costs associated with preparing capecitabine. An Oncology Grouping and Costing Study was performed to determine the relevant administration costs associated with a central venous access device, its placement, maintenance and removal (as required for 5-FU administration) and the continuous infusion of 5-FU via a Continuous Ambulatory Delivery Device pump or infuser. **RESULTS:** This economic evaluation has shown that treating advanced eGC patients with capecitabine in a triplet and a doublet chemotherapy combination results in average cost savings of $5,291 and $2,142 respectively, when compared with 5-FU. A multi-way sensitivity analysis demonstrated that the use of capecitabine remained cost-saving from an Australian government health budget perspective ($1765 and $340, respectively). **CONCLUSIONS:** The use of capecitabine, compared with 5-FU, for the treatment of advanced eGC is cost-saving from an Australian government health budget perspective.

PCN96

COST MINIMIZATION ANALYSIS OF XELODA® VERSUS 5-FLUOROURACIL-BASED TREATMENT FOR GASTRIC CANCER PATIENTS IN HONG KONG

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OBJECTIVES: EOX (epirubicin, oxaliplatin, Xeloda®) and FOLFOX4 (5-fluorouracil (5-FU), leucovorin, oxaliplatin) are the common chemotherapy regimens used in the treatment of advanced gastric cancer (aGC) in Hong Kong. Previous clinical studies have shown the Xeloda®-based regimen, EOX, to be non-inferior to the 5-FU-based counterpart, FOLFOX4, in terms of efficacy. This study aims to compare the costs of these therapies from both the health care and societal perspectives. **METHODS:** Thirty-seven patients were identified from the electronic records at a public tertiary hospital, with 26 and 11 received EOX and FOLFOX4 regimens respectively. Health care cost refers to direct medical costs including drugs, clinic follow-up, hospitalization, diagnostic laboratories and radiographs. Societal cost refers to indirect costs such as patient time and travel costs. Cost items were further classified as "expected" or "unexpected". All cost data was expressed in Hong Kong dollars (app. 10HKD = 1Euro). **RESULTS:** Patients in the EOX and FOLFOX4 arm received an average of 5.3 and 7.5 cycles of treatment respectively. The Xeloda®-based regimen group had a higher expected medication cost when compared to the 5-FU-based treatment group ($5145.3 vs. $2515.3, $p<0.001$) but lower expected hospitalization costs ($600 vs. $9900, $p<0.001$) and associated time costs ($812.6 vs. $1197.3, $p=0.001$) due to fewer hospital bed-days required for delivery. The total health care cost and total societal cost per patient was reduced by 59.3% ($58541.2 vs. $143914.1, $p<0.001$) and 42.6% ($8127.5 vs. $14151.3, $p<0.001$) respectively in the Xeloda®-based regimen group. Sensitivity analyses based on full cycle regimen costs and net Xeloda® or 5-FU/leucovorin costs still showed EOX to be less costly than FOLFOX4. **CONCLUSIONS:** The Xeloda®-based regimen, EOX, was found to generate significant cost saving in both health care and societal perspectives. Provided the similar efficacy between EOX and FOLFOX4 in aGC treatment, the Xeloda®-based therapy is more cost-effective and should be advocated when appropriate.

PCN97

PHARMACOECONOMIC ANALYSIS OF THE PROSTATE CANCER THERAPY WITH GONADOTROPIN-RELEASING HORMONE ANALOGUES: LEUPRORELIN, GOSERELIN, TRIPTORELIN

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OBJECTIVES: To perform an economic evaluation of prostate cancer (PC) treatment with luteinizing hormone-releasing hormone agonists (LHRH): leuprorelin (L), gos-